

## 2.0 PREVIOUS INVESTIGATIONS

The following section provides a chronological summary of investigations that have occurred at the former Walker AFB. Data from these reports are further defined in Section 3.0.

In August and October 1991, trichloroethylene (TCE) was detected by the New Mexico Environmental Department (NMED) in twelve private wells located to the east of the base boundary in a subdivision known as Y-O acres. The private wells were sampled following a rain event that resulted in sheet flow runoff through the area of the former base. It was reported that the sheet flow was deep enough to cover the well heads of the private wells east of the former base (WAFB-AR-11782). As a result of the elevated concentrations of TCE, an Interim Remedial Action was executed by the United States Corp of Engineers (USACE) in October and November 1991. Residents with wells within or adjacent to the TCE contaminated plume were connected to Roswell's municipal water supply system and were supplied with bottled water during the waterline construction. Additional testing by the NMED identified additional TCE and dichloroethylene (DCE) groundwater contamination north and northeast of the base (WAFB-AR-11782).

In 1991, the United States Army Corps of Engineers (USACE) conducted site visits to areas of concern on the former Walker Air Force Base. As a result of the site visits, the USACE produced Inventory Project Reports (INPR), Site Survey Summary Sheets, and Findings of Eligibility (WAFB-AR-00057-WAFB-AR-00179).

Between 1991 and 1992, production wells such as RIAC 1, were sampled. This data was not summarized in a report; however, a summary of findings were reported in various reports such as the *Chemical Data Acquisition Plan Remedial Investigation/Feasibility Study, B & V Waste Science and Technology Corp.*, dated July 1993 (WAFB-AR-00180-WAFB-AR-00288).

In October 1992, Target Environmental Services, Incorporated (Target) conducted a soil gas survey investigation. During the investigation, 105 soil gas samples were collected to determine the presence and extent of subsurface volatile organic compounds and help define the areal extent of a known trichloroethene plume. The results of this investigation were presented in a report titled *Soil Gas Survey, Former Walker Air Force Base, Roswell, New Mexico*, dated November 1, 1992 (WAFB-AR-00026-WAFB-AR-00052).

In 1993 and 1994, Black and Veatch Waste Science, Inc. (Black and Veatch) conducted an investigation of trichloroethene (TCE) in groundwater. The results from this investigation were presented in a report titled *Former Walker Air Force Base Phase I Remedial Investigation of Trichloroethene (TCE) Groundwater Contamination*, dated August 1994 (WAFB-AR-11754-WAFB-AR-12832).

During the months of December and November 1994, Remedial Contractors, Inc. (RCI) excavated and removed twenty underground storage tanks, closed in place eight underground storage tanks, collected soil samples, and removed and disposed of PCB transformers. The report describes closure and removal activities conducted at six sites, Pump House 1, 2, 3, 6,

7, and Building 130. The results of this investigation were presented in a report titled *Closure Report, Underground Storage Tank Removal/Disposal, Walker Air Force Base, New Mexico*, no date was provided (WAFB-AR-01154-WAFB-AR-01252).

In 1994, Rust Environment and Infrastructure conducted an investigation for potentially responsible parties. The results of this research was presented in a report titled *Potentially Responsible Parties Investigation, Former Walker Air Force Base, Roswell, New Mexico*, dated July 1994 (WAFB-01-00496-WAFB-01-00623).

In 1994, Hall Environmental analyzed wells MW-1, MW-2, and SW-10 for VOCs and TPH and well SW-2B for VOCs. The analytical results were provided electronically by the USACE Sacramento District (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

On June 7, 1995, Edward L. Paulsgrove attempted to gain access to 56 W. Byrne Street, an area of concern at the former Walker AFB. This area of concern was identified on March 24, 1991, when some children were playing in the yard of one of the abandoned base houses and unearthed some mercury (WAFB-AR-00086). The field notes summarize an attempt to have a Right of Entry form signed by the owner/resident at 56 W. Byrne Street. The field notes, presented in an August 9, 1995 memorandum, included sampling activity and the possible cause of contamination (WAFB-AR-12965-WAFB-AR-12968).

Between September and October 1995, Envo-Tech, Inc. (ETI), removed two aboveground storage tanks (ASTs) and the associated piping. The field work included removing both of the ASTs and collecting one soil sample beneath the bottom floor area from each tank and collecting one soil sample from each of the pipe flowline ditches. The results from these efforts were presented in a report titled *Petroleum Storage Tank Removal, Location: Roswell Industrial Air Center East Martin & Earl Cumming Blvd., Roswell, New Mexico*, dated November 20, 1995 (WAFB-AR-18734-WAFB-AR-18836).

Between June and September 1995, OHM conducted site investigations at six areas on the former Walker AFB. These areas included Southeast Landfill LF-2, the Hospital Debris Landfill, the Northeast Area, Southwest Landfill LF-4, the Tetraethyl Lead Pit, and the Photo Lab. The site investigations included drilling soil borings, trenching, surface sampling, and monitor well installation. The sampling results from these efforts were presented in the *Final Site Investigation Report, Former Walker Air Force Base (WAFB)*, dated August 14, 1996 (WAFB-AR-08488-WAFB-AR-08889).

Between April and September 1995, Black and Veatch conducted site investigations at the former Walker AFB consisting of the installation of five shallow and three deep alluvial monitoring wells and two deep artesian wells. Activities also included the collection of soil and bedrock samples and conducting a surface geophysical survey. The results of this investigation were presented in the *Final Phase II Remedial Investigation Report of Trichloroethene (TCE) Groundwater Contamination, Former Walker Air Force Base*, dated August 1996 (WAFB-AR-03690-WAFB-AR-03949A).

Between January and April 1996, OHM conducted site investigations at six areas on the former Walker AFB. These areas included the West Aircraft Wash-Down Area, the East Aircraft Wash-Down Area, the Eastern Storm Drainage and Settling Pond, the Motor Pool, Landfill 1, and the Fire Training Area. The site investigations included drilling soil borings, trenching, and monitoring well installation. The sampling results from these efforts were presented in the *Final Site Investigation for the Potentially Responsible Party (PRP) Investigation, Former Walker Air Force Base*, dated January 21, 1997 (WAFB-01-00624-WAFB-01-01361).

Between August and September 1996, OHM conducted a monitoring well sampling investigation. The investigation included collecting and analyzing groundwater samples from 36 on-site monitoring wells and 15 off-site private/residential wells. The sampling results from this effort were presented in the *Final Monitoring Well Sampling Report, Former Walker Air Force Base*, dated February 14, 1997 (WAFB-AR-09113-WAFB-AR-09363).

Between July and August 1996, OHM conducted a background soil sampling investigation. The investigation included collecting and analyzing 55 background soil samples. The objective of the investigation was to collect sufficient metals data for surface and subsurface soil samples to determine representative background soil concentrations. The sampling results from this sampling effort were presented in the *Final Background Soil Sampling Report, Former Walker Air Force Base*, dated February 14, 1997 (WAFB-AR-09365-WAFB-AR-09596).

In July 1996, Assaigai Laboratories analyzed samples from Pump House 7. The analytical results were provided electronically by USACE, Sacramento District (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

In 1997, OHM conducted extended site investigations at the Southeast Landfill and the Chemical Disposal Area. The site investigations included drilling soil borings, collecting surface soil samples, collecting monitoring well soil boring samples, and collecting a groundwater sample. The sampling results from these efforts were presented in the *Final Site Investigation Report at Six Sites Appendix 1, Extended Site Investigation Chemical Disposal Area and the Southeast Landfill, Former Walker Air Force Base*, dated February 14, 1997 (WAFB-AR-13909-WAFB-AR-14074).

In 1997, Quadrel Services, Inc., conducted a soil gas survey at Pump House 7. The soil gas survey included collecting soil gas samples from 94 sampling point locations in the vicinity of Pump House 7. The sampling results from these efforts were presented in the *EMFLUX Passive, Non-Invasive Soil Gas Survey Pump House 7, Roswell Industrial Air Center, Roswell, New Mexico*, dated June 18, 1997 (this has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

In 1997, HydroGeoLogic Inc. conducted an investigation for potentially responsible parties (PRPs). The results of this research were presented in a report titled *Final Investigation Report: Site Ownership/Operations History PRP Investigation and Analysis, Former Walker Air Force Base*, dated August 13, 1997 (WAFB-01-00141-WAFB-01-00493A).

In November 1997, Assaigai Laboratories analyzed samples from Pump House 7. The analytical results were provided electronically by USACE, Sacramento District (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

In April 1998, Assaigai Laboratories analyzed samples from Pump House 7. The analytical results were provided electronically by USACE, Sacramento District (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

In September 1998, Assaigai Laboratories analyzed samples from the Audet, Rowden and Tucker private wells. The analytical results were provided electronically by USACE, Sacramento District (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

Between March and May 1999, Western Technologies Inc. conducted an assessment of petroleum hydrocarbon concentrations in the soil beneath Pump House 7. The investigation included collecting monitoring well soil boring samples and collecting groundwater samples. The sampling results from these efforts were presented in the *Hydrogeologic Investigation Report, Roswell Industrial Air Center, Roswell, New Mexico*, dated March 9, 2000 (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

In July 2000, IT Corporation conducted a site investigation at Building 1670. The site investigation included drilling four soil borings and completing one monitoring well. The sampling results from these efforts were presented in the *Site Investigation Report Building 1670, Former Walker Air Force Base, Roswell, New Mexico*, dated January 2001 (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

In 2002, HydroGeoLogic Inc. conducted an investigation for potentially responsible parties. The report focused on the historical operations and environmental studies regarding Building 58, Building 85, Pump House 7 (Building 81), the areas surrounding these buildings, and an area located east of the former base known as YO Acres. The results of this research were presented in a report titled *Draft PRP Analysis, Former Walker Air Force Base*, dated August 30, 2002 (WAFB-01-00017-WAFB-01-00140).

Between July and August 2002, Atkins Engineering Associates, Inc. (AEA), conducted a subsurface exploration investigation at Hangar 58. The investigation included the completion of two monitoring wells and the collection of monitoring well soil boring samples and groundwater samples. The sampling results from these efforts were presented in

the *Subsurface Exploration Report Hangar 58, Roswell Industrial Air Center, Roswell, New Mexico*, dated September 19, 2002 (WAFB-AR-14434-WAFB-AR-15182).

In 2002, IT Corporation conducted a modified site inspection at the Waste Oil Disposal Area. The site inspection included drilling soil borings, collecting monitoring well soil boring samples and installing monitoring wells. During the investigation, 39 soil samples were collected and three groundwater samples were collected. The sampling results from these efforts were presented in the *Draft Modified Site Inspection Report Waste Oil Disposal Area, Former Walker Air Force Base, Roswell New Mexico*, dated October 2002 (WAFB-AR-15185-WAFB-AR-15410).

Between 2001 and 2003, well testing was conducted at Pump House 7. The analytical results were provided electronically by USACE, Sacramento District (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

IT Corporation conducted a modified inspection at the Waste Oil Disposal Area. The report describes the Phase 1 soil sampling and the Phase 2 installation of monitoring wells, collection of soil samples, collection of groundwater samples from existing monitoring well, and redevelopment of a second existing monitoring well. The results from this investigation are detailed in a report titled *Final, Modified Site Inspection Report, Waste Oil Disposal Area, Former Walker Air Force Base, Roswell, New Mexico, FUDS No., K06NM005214*, dated April 2003 (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

In October 2003 and November 2003, Shaw Environmental, Inc. performed basewide groundwater monitoring (BGM) at WAFB. The BGM activities included performing a civil survey of 58 monitoring wells, collecting groundwater elevation measurements, and sampling groundwater at a total of 68 wells. The sampled wells included 56 existing monitoring wells located within the former WAFB, two new monitoring wells installed at the Hospital Debris Landfill, two City of Roswell water supply wells, and eight private residential wells associated with the residential area, Y-O Acres, adjacent to the eastern boundary of the former WAFB. The analytical results were provided electronically by USACE, Sacramento District (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).

Atkins Engineering Associates, Inc., conducted a quarterly monitoring and operation and maintenance report. The groundwater investigation included remediation system repairs, measuring water elevations, and collecting groundwater samples from selected monitoring and private/residential wells. The sampling results from these efforts were presented in the *RIAC Stage 2 TCE Abatement Quarterly Sampling Report, Former Walker Air Force Base, Roswell, New Mexico*, dated September 2003; additional results from the fourth quarter of 2003 are also included in this report (this report has not yet been incorporated into the Administrative Record numbering system for Walker Air Force Base).